

R E M A R K S

Claims 9-16 are pending.

Claim 16 was rejected under 35 U.S.C. § 112 ¶2. It is believed that claim 16 was in proper form. While claim 16 recites that the mat is broken, the intermediate article of claim 14, while recited to include breakable portions, may in fact also be broken even prior to laying in place. That is, during handling after manufacturing but before being filing laid in place, the intermediate article may, too, have actual breaks along breakable portions. Nonetheless, claim 16 has been rewritten in independent form to eliminate this as an issue.

The claims have otherwise been rejected as anticipated under 35 U.S.C. § 102(e) by Chen U.S. Patent No. 6,585,449 B2. Applicant respectfully traverses this rejection.

Chen discloses a gutter duct structure for a concrete roadway. The structure is not a mat, but is an in-place concrete roadway:

During construction of the roadway top surface layer, first, lay a sand layer 42 as the water seeping layer, then place the assemble unit brackets 30 with the duct elements 10 on the sand layer 42 and bury the bottom ends of the duct elements 10 in the sand layer, then pour concrete 41. After the concrete is cured and solidified, remove the lids 20 to complete the top surface layer of the roadway.

Col. 3, lines 23-29. The fact that the Chen structure is a formed in place as a roadway rather than as mat to be laid in place is also obvious from the fact that the plastic duct elements 10 extend below the bottom surface of the concrete 41. The bottom part of those duct elements obviously could not support the weight of the concrete structure and

would be crushed if the structure were formed as a mat and then carried to the road site for laying on the sand layer.

Further, it is not clear that the Chen structure is intended to crack. It is not laid on varyingly uneven ground, but rather is intentionally laid on a specially installed flat supporting foundation (sand layer 42). Also, since the upper and lower brackets 31, 32 "can reinforce the strength of the concrete roadway" (col. 3, lines 14-15), such reinforcement at both the top and bottom surface is inconsistent with bending for cracking. Still further, it would be inconsistent with the purpose of the Chen structure for it to crack in the gutters since water would fall into such cracks and could not reach the top lip of the duct elements 10 to flow away as desired in Chen.

Moreover, even if the Chen structure were to crack, the duct elements 10 would not make the structure breakable along the "thinner" portions of the structure as claimed by Applicant. The "thinner" portions of the Chen structure are only slightly thinner for the purpose of defining "gutters to facilitate water discharge." Col. 3, lines 54-55. Given the relative dimensions (see, e.g., Fig. 6 at right), there is no reason to believe that these structures would break (if they did at all) along lines which do not extend into the "thick" portions. Moreover, given that the brackets 31, 32 are

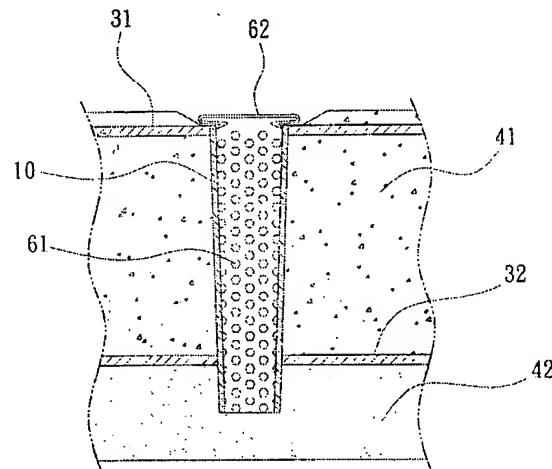


Fig. 6

positioned specifically at the gutters, it is incongruous to state that the cracking is going to be confined to those reinforced areas over the areas without such reinforcement.

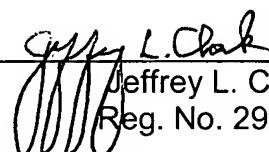
The claims as presented herein clearly distinguish from the above roadway structure. Specifically, all of the claims recite a "concrete mat". The claims also recite that the slab of the mat is breakable (or broken) along portions of the thinner portions spaced from the thicker portions. Such controlled breaking as occurs with the present invention is advantageous as previously detailed in the prosecution of this application, and is not only not taught or suggested in Chan, but it is taught away from by Chan.

For the above stated reasons, claims 9-16 are submitted to be allowable. Early notification to that effect is respectfully requested.

Respectfully submitted,

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